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## **AMENDMENTS IN THE CLAIMS:**

1. (Currently Amended) A power control circuitry for controlling the output power level  $(P_{out})$  of a signal (x(t)) to be transmitted at the output port of a variable-gain power amplifier (105), said power control circuitry (101M+N) comprising a current sense loop (101M) with an integrated comparator stage (112") having a first input port supplied with a reference signal  $(V_{ref})$  representing the nominal power level  $(P_{ref})$  for the output power  $(P_{out})$  and a second input port supplied with a signal from a current sensor (204) which is placed in the power supply line of a variable-gain power amplifier (105), wherein the output signal of said comparator stage (112") is fed to the power control input port of the variable-gain power amplifier (105),

characterized by and further comprising

- power sensing means (108) for detecting the power of a feedback signal ( $V_{PD}$ ) representing the reflected wave of the signal (x(t)) to be transmitted, and
- a feedback loop (101N) for feeding said reference signal ( $V_{ref}$ ) derived from said feedback signal ( $V_{PD}$ ) and a reference ramp signal ( $V_{ramp}$ ) to the first input port of the comparator stage (112") in order to increase the radiated power ( $P_{out}$ ) of said signal (x(t)) in case a transmit antenna (110) is mismatched to the variable-gain power amplifier (105).
- 2. (Currently Amended) A power control circuitry according to claim 1, characterized by including signal processing means comprising
- a multiplier (301b) for multiplying a processed version  $(K \cdot G_{OP} \cdot V_{PD})$  of the feedback signal  $(V_{PD})$  by the reference ramp signal  $(V_{ramp})$ ,
- a summation element (301a), used for adding the output signal ( $V_{ramp}$ ·K· $G_{OP}$ · $V_{PD}$ ) of the multiplier (301b) to the reference ramp signal ( $V_{ramp}$ ), thereby yielding said reference signal ( $V_{ref}$ ).
- 3. (Currently Amended) A power control circuitry according to claim 1, eharacterized by including

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digital signal processing means (201C) comprising a multiplication element (301b') for multiplying a gain factor ( $\chi := 1 + K \cdot G_{OP} \cdot V_{PD}$ ) supplied by a gain factor control unit (301e) by the reference ramp signal ( $V_{ramp}$ ), wherein K is a normalization factor (in  $V^{-1}$ ) and  $G_{OP}$  denotes the gain factor of an operational amplifier (303) in said feedback loop (101N), thereby yielding said reference signal ( $V_{ref}$ ).

- 4. (Currently Amended) A power control circuitry according to anyone of the claims 1 to 3 claim 1, eharacterized by including decoupling means (106) at the output port of the variable-gain power amplifier (105) for providing a feedback signal ( $V_{PD}$ ).
- 5. (Currently Amended) A power control circuitry according to claim 4, eharacterized in that wherein said decoupling means (106) is realized as a directional coupler (106') or a circulator (106'').
- 6. (Currently Amended) A method for stabilizing the power level  $(P_{out})$  of a signal (x(t)) to be transmitted at the output port of a variable-gain power amplifier (105), said method being characterized by the following steps:
- detecting (S1) the voltage level ( $V_{PD}$ ) of a feedback signal which represents the reflected wave of said signal (x(t)),
- calculating (S1A) a reference signal ( $V_{ref}$ ) representing the nominal power level ( $P_{ref}$ ) for the output power ( $P_{out}$ ) of the RF output signal (x(t)) as a function of a reference ramp signal ( $V_{ramp}$ ) and said feedback signal ( $V_{PD}$ ),
- feeding (S2) the obtained reference signal ( $V_{ref}$ ) to a first input port of a comparator stage (1.12") in the feedback chain of the current sense loop (101M),
- feeding (S4) a signal representing the DC supply current ( $I_{PA}$ ) of the variable-gain power amplifier (105) to a second input port of said comparator stage (112"),
- comparing (S5) the voltage level of the signal derived from said voltage drop ( $U_{RM}$ ) with the voltage level of said reference signal ( $V_{ref}$ ),
- feeding (S6) a signal being a function of the difference between the signal derived from

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- said voltage drop ( $U_{RM}$ ) and the calculated reference signal ( $V_{ref}$ ) to a first input port of the power amplifier (105), and
- adjusting (S7) the current power level ( $P_{out}$ ) by amplifying the difference between the output signal of said comparator stage (112'') and the signal (x(t)) to be transmitted before being amplified at a second input port of the variable-gain power amplifier (105).
- 7. (Currently Amended) A method according to claim 6, eharacterized in that wherein the step (S1A) of calculating said reference signal ( $V_{ref}$ ) comprises the following steps:
- multiplying (S1a') a processed version ( $K \cdot G_{OP} \cdot V_{PD}$ ) of the feedback signal ( $V_{PD}$ ) by the reference ramp signal ( $V_{ramp}$ ) and
- adding (S1a'') the output signal ( $V_{ramp} \cdot K \cdot G_{OP} \cdot V_{PD}$ ) of the multiplication step (S1a') to the reference ramp signal ( $V_{ramp}$ ), thereby yielding said reference signal ( $V_{ref}$ ).
- 8. (Currently Amended) A method according to claim 6, characterized in that wherein the step (S1A) of calculating said reference signal ( $V_{ref}$ ) comprises the step of multiplying (S1b) a gain factor ( $\chi := 1 + K \cdot G_{OP} \cdot V_{PD}$ ), which is supplied by a gain factor control unit (301e), by the reference ramp signal ( $V_{ramp}$ ), thereby yielding said reference signal ( $V_{ref}$ ).
- 9. (Currently Amended) A wireless telecommunication device, eharacterized-by including a mobile RF transmitter (300a, 300b or 300e) comprising a power control circuitry (101M+N) according to anyone of the claims-1-to-5 claim 1.